

REMARKS

Claims 1-20 are pending in the application. By this Amendment, Claims 1-20 are amended, and Claims 21-24 are canceled as being drawn to a non-elected invention. Favorable reconsideration is respectfully requested in light of the following Remarks.

I. Election/Restriction

By this Amendment, Claims 21-24 are canceled as being drawn to a non-elected invention.

II. Miscellaneous

The Office action objects to Claims 1-20 because of a minor informality. By this Amendment, Claims 1-20 are amended to correct the informality. Withdrawal of the objection is respectfully requested.

III. The Claims Satisfy the Requirements of 35 USC 112, Second Paragraph

The Office action rejects Claims 13 and 19 under 35 U.S.C. 112, second paragraph, asserting that the feature of a “high temperature” fuel cell is a relative term and renders the claim indefinite.

By this Amendment, Claims 13 and 19 are amended to further define that a “high temperature” fuel cell is a fuel cell in which waste heat is generated with a temperature in a range between about 600°C to about 1300°C. Support for this feature can be found in Paragraph [0004] of the originally-filed specification.

It is respectfully submitted that amended Claims 13 and 19 satisfy the requirements of 35 U.S.C. 112, second paragraph. Withdrawal of the rejection is respectfully requested.

IV. The Claims Define Patentable Subject Matter

I. The Office action rejects Claims 1-4, 6-11 and 13-20 under 35 U.S.C. 102(b) over Reichner et al. (US Patent No. 5,169,730, hereinafter “Reichner”). The rejection is respectfully traversed.

By this Amendment, independent Claim 1 specifies, *inter alia*, an oxidant distribution system for a fuel cell assembly comprising an insulation layer interposed between a housing and a fuel cell. The insulation layer defines at least a first cavity adjacent the at least one oxidant inlet, wherein the insulation layer is an oxidant distributor for channeling oxidant flow to the at least one oxidant inlet of the fuel cell. Support for this feature can be found, for example, in *Figs. 1 and 2* and *Paragraphs [0015]-[0019]* of the specification.

Independent Claim 15 specifies, *inter alia*, an oxidant distribution system for a fuel cell assembly comprising an insulation layer interposed between a housing and a fuel cell. The insulation layer defines an array of channels, wherein a respective channel within the array is matingly positioned adjacent to at least one respective inlet, and wherein the insulation layer is an oxidant distributor for channeling oxidant flow to the at least one respective inlet of the fuel cell. Support for this feature can be found, for example, in *Figs. 3-6* and *Paragraphs [0020]-[0022]* of the specification.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference. *See MPEP §2131*. It is respectfully submitted that there is no mention in Reichner of at least the feature of an insulation layer that defines at least a first cavity adjacent the at least one oxidant inlet, wherein the insulation layer is an oxidant distributor for channeling oxidant flow to the at least one oxidant inlet of the fuel cell, as recited in Claim 1. In addition, it is respectfully submitted that there is no mention in Reichner of at least the feature of an insulation layer that defines an array of channels, wherein a respective channel within the array is matingly positioned adjacent to at least one respective inlet, and wherein the insulation layer is an oxidant distributor for channeling oxidant flow to the at least one respective inlet of the fuel cell, as recited in Claim 15. Therefore, Reichner is not identical to the claimed invention, and the rejection is misplaced.

For at least reason, Claims 1 and 15 are allowable over the applied art. Claims 2-4 and 6-14, which depend from Claim 1, and Claims 16-20, which depend from Claim 15, are likewise allowable over the applied art. Withdrawal of the rejection is respectfully requested.

Further, it would not have obvious to modify Reichner to meet the claimed

invention. Reichner teaches an inlet 30 and feed conduits 42 for the oxidant distribution system. There is no suggestion in Reichner of using the insulation 26 as the oxidant distribution system, as recited in the claimed invention.

By contrast, the insulation layer of the claimed invention serves a dual purpose of 1) a thermal insulation layer, and 2) an oxidant distributor. By using the insulation layer as the oxidant distributor, the system has an overall reduction in the number of parts required. Additionally, by eliminating an additional air distributor, more insulation can be packed into a given housing, thereby improving the overall efficiency of the system. Moreover, the use of the insulating layer as the oxidant supply flow path also allows the oxidant leaving the first cavity to retain more of its heat and creates efficiency advantages in certain system configurations. See *Paragraph [0019]* of the specification.

For at least this additional reason, Claims 1 and 15 are allowable over the applied art. Withdrawal of the rejection is respectfully requested.

2. The Office action rejects Claims 5 and 12 under 35 U.S.C. 103(a) over Reichner in view of Kelly et al. (EP Patent No. 1,300,902, hereinafter “Kelly”). The rejection is respectfully traversed.

According to MPEP §2143, to establish a *prima facie* case of obviousness, three criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. *In re Linter*, 458 F.2d 1013, 173 USPQ 560, 562 (CCPA 1972). Second, there must be a reasonable expectation of success. *In re Merck & Co., Inc.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Finally, the applied reference must teach or suggest all the claim limitations. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974).

Claims 5 and 12 ultimately depend from Claim 1. Similar to Reichner, there is no mention in Kelly of at least the feature of an insulation layer that defines at least a first cavity adjacent the at least one oxidant inlet, wherein the insulation layer is an oxidant distributor for channeling oxidant flow to the at least one oxidant inlet of the fuel cell, as recited in Claim 1. Therefore, the combination of Reichner and Kelly does not teach all the claim limitations recited in Claim 1, and the Office action fails to establish a *prima*

facie case of obviousness.

For at least this reason, Claims 5 and 12 are allowable over the applied art, taken singly or in combination. Withdrawal of the rejection is respectfully requested.

V. Conclusion

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Favorable consideration and prompt allowance of the application is earnestly solicited.

Should Examiner Ruthkosky believe anything further would be desirable in order to place the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney at the telephone number listed below.

It is believed that any additional fees due with respect to this paper have already been identified. However, if any additional fees are required in connection with the filing of this paper, permission is given to charge account number 07-0868 in the name of General Electric Company.

Respectfully submitted,

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